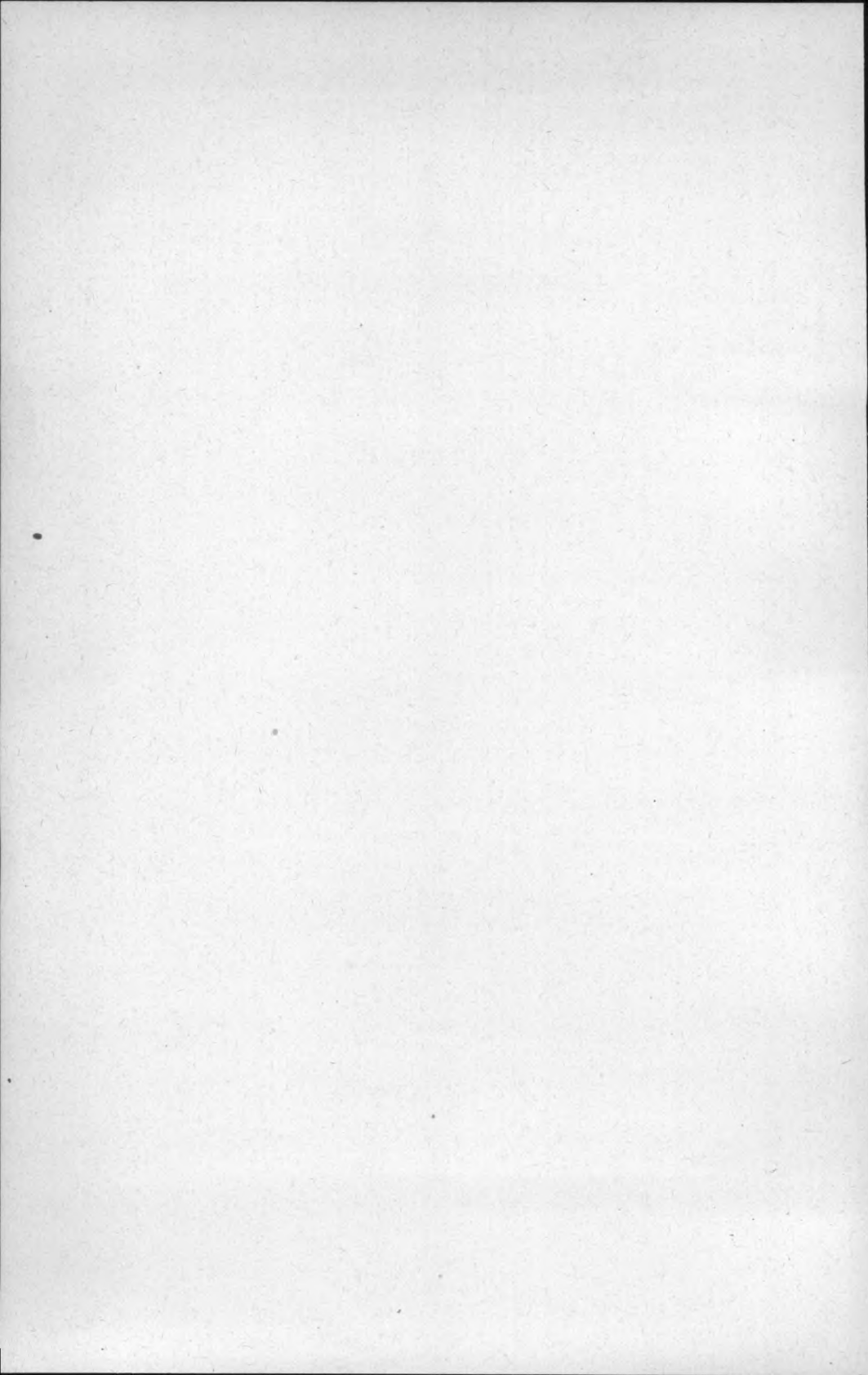


CORNELL UNIVERSITY OFFICIAL PUBLICATION

Announcement of the
School of Education
for 1942-43



VOLUME 33 : APRIL 1, 1942 : NUMBER 16



The University Calendar for 1942-43

1942

FALL TERM

Sept. 9-10, <i>Wed.-Thurs.</i> ,	Entrance examinations.
Sept. 28, <i>Monday</i> ,	Registration and assignment, new students.
Sept. 29, <i>Tuesday</i> ,	Registration and assignment, old students.
Oct. 1, <i>Thursday</i> ,	Instruction begins at 8 A.M.
Oct. 22, <i>Thursday</i> ,	Last day for the payment of tuition for the fall term.
Nov. 26, <i>Thursday</i> ,	<i>Thanksgiving Day</i> , a holiday.
Dec. 19, <i>Saturday</i> ,	Instruction suspended at 12:50 P.M.

1943

(Christmas Recess)

Jan. 4, <i>Monday</i> ,	Instruction resumed at 8 A.M.
Jan. 11, <i>Monday</i> ,	Founder's Day.
Jan. 21, <i>Thursday</i> ,	Final examinations begin.
Jan. 28, <i>Thursday</i> ,	Final examinations end.

SPRING TERM

Jan. 29, <i>Friday</i> ,	Registration of all students.
Feb. 1, <i>Monday</i> ,	Instruction begins at 8 A.M.
Feb. 22, <i>Monday</i> ,	Last day for the payment of tuition for the spring term.
March 27, <i>Saturday</i> ,	Instruction suspended at 12:50 P.M.

(Spring Recess)

April 5, <i>Monday</i> ,	Instruction resumed at 8 A.M.
May 17, <i>Monday</i> ,	Final examinations begin.
May 22, <i>Saturday</i> ,	Final examinations end.
May 24, <i>Monday</i> ,	COMMENCEMENT.

CORNELL UNIVERSITY OFFICIAL PUBLICATION

PUBLISHED BY CORNELL UNIVERSITY AT ITHACA, N. Y.

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Semi-monthly, December to August inclusive

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SCHOOL OF EDUCATION

FACULTY

- EDMUND EZRA DAY, S.B., A.M., Ph.D., LL.D., President of the University.
JULIAN EDWARD BUTTERWORTH, A.B., A.M., Ph.D., Director of the School of Education and Professor of Rural Education (Educational Administration).
HOWARD R. ANDERSON, Ph.D., Associate Professor of Education (Teaching of the Social Studies).
THOMAS L. BAYNE, JR., Ph.D., Assistant Professor of Rural Education (Educational Psychology and Measurement).
CORA E. BINZEL, M.S., Professor of Rural Education (Home Economics Education).
THEODORE H. EATON, Ph.D., Professor of Rural Education (Philosophy of Education).
LEWIS ELDRED, M.A., Chairman of the Bureau of Educational Service.
LYNN A. EMERSON, Ph.D., Professor of Industrial Education.
EMERY N. FERRISS, Ph.D., Professor of Rural Education (Secondary Education and Curriculum).
FRANK S. FREEMAN, Ed.D., Professor of Education (Educational Psychology). (Absent on leave, second term, 1942-43).
———, Instructor in Rural Education (Educational Psychology).
J. PAUL GREEN, A.B., Instructor in Rural Education (Agricultural Education).
ALFRED H. GROMMON, M.A., Instructor in Education (Teaching of English).
MABEL A. HASTIE, M.S. in Ed., Instructor in Rural Education (Home Economics Education).
GRACE M. HENDERSON, M.S., Assistant Professor of Home Economics.
EDWIN R. HOSKINS, Ph.D., Associate Professor of Rural Education (Agricultural Education).
M. LOVELL HULSE, Ph.D., Associate Professor of Education (Secondary Education).
MARGARET HUTCHINS, M.A., Instructor in Rural Education (Home Economics Education).
PHILIP G. JOHNSON, Ph.D., Assistant Professor of Education (Teaching of Science).
RIVERDA H. JORDAN, Ph.D., Professor of Education, Emeritus.
PAUL J. KRUSE, Ph.D., Professor of Rural Education (Educational Psychology).
CLYDE B. MOORE, Ph.D., Professor of Rural Education (Elementary Education and Supervision).
ROY A. OLNEY, Ph.D., Assistant Professor of Rural Education (Agricultural Education).
E. LAURENCE PALMER, Ph.D., Professor of Rural Education (Nature Study).
ANNA Y. REED, Ph.D., Lecturer in Guidance and Personnel, School of Education.
THOMAS A. RICH, B.S., Instructor in Rural Education (Agricultural Education).
ETHEL C. ROBERTS, A.B., Instructor in Rural Education (Home Economics Education).
WILLIAM A. SMITH, Ph.D., Associate Professor of Rural Education (Agricultural Education).
ROLLAND M. STEWART, Ph.D., Professor of Rural Education (Agricultural Education).
FLORA M. THURSTON, M.A., Professor of Home Economics Education.
ANDREW L. WINSOR, Ph.D., Professor of Rural Education (Personnel Administration).

REPRESENTATIVES OF ACADEMIC GROUPS

- W. C. BALLARD, JR., Ph.D., Professor of Electrical Engineering (1944).
J. A. HARTELL, Ph.D., Assistant Professor of Architecture (1944).
JAMES HUTTON, Ph.D., Professor of the Classics (1945).

- C. W. JONES, Ph.D., Associate Professor of English (1945).
 L. H. MACDANIELS, Ph.D., Professor of Horticulture (1943).
 MARGARET MERCER, Ph.D., Assistant Professor of Home Economics (1943).
 M. L. NICHOLS, Ph.D., Professor of Chemistry (1944).
 C. E. PALM, Ph.D., Professor of Entomology (1944).
 J. F. RANDOLPH, Ph.D., Assistant Professor of Mathematics (1944).
 J. L. WOODWARD, Ph.D., Associate Professor of Sociology (1944).

ASSISTANTS, 1941-42

- ELLIS B. CLOUGH, M.S. Ag. Ed., Assistant in Agricultural Education.
 SHIRLEY COOPER, M.A., Assistant in Rural Education.
 EDMUND H. CRANE, M.A., Research Assistant in Rural Education.
 ROBERT L. CRANE, M.S. Ed., Assistant in Agricultural Education.
 MARTELE L. CUSHMAN, A.M., Assistant in Rural Education.
 JOHN DELANEY, M.S., Assistant in Rural Education.
 WARREN I. DENSMORE, M.A., Assistant in Secondary Education.
 ELAINE FORSYTH, M.A., Assistant in Social Studies Education.
 CATHERINE GRADY, A.B., Assistant in the Teaching of English.
 CORINNE HEATON, B.S., Assistant in Rural Education.
 SAM P. HEWITT, M. Ed., Assistant in Science Education.
 NORMAN H. HIGH, M.S., Assistant in Rural Education.
 RICHARD H. JORDAN, M.S., Research Assistant in Rural Education.
 JOHN A. MACK, B.S., Assistant in Agricultural Education.
 CATHARINE NEWBOLD, B.A., Assistant in Social Studies Education.
 HAROLD L. NOAKES, M.S. Ed., Assistant in Agricultural Education.
 LEON F. PACKER, B.S., Assistant in Agricultural Education.
 HAROLD J. PALMER, A.B., Assistant in Personnel Administration.
 EARL G. PLANTY, M.A., Assistant in Rural Education.
 ELMER E. PULS, M.S., Assistant in Agricultural Education.
 HERBERT SEIDELMAN, B.S., Research Assistant in Rural Education.
 ROY C. SWINGLE, A.B., Assistant in Personnel Administration.
 EVELYN M. VAN DUZER, M.S., Assistant in Science Education.
 PALMER J. WASLIEN, B.A., Assistant in Science Education.
 KENNETH D. WELLS, B.S., Assistant in Agricultural Education.
 JOHN R. WILMETH, M.A., Assistant in Social Studies Education.
 RICHARD WORTHINGTON, A.B., Assistant in Human Growth and Development.

COOPERATING TEACHERS IN THE ITHACA
HIGH SCHOOLS 1941-42

AXTELL, WILLIAM B.
 BARTHOLOMEW, BERTHA
 BECKER, VELMA
 BLISS, FRANK R.
 BROWN, EMILIE
 BUTLER, ELTON A.
 CATALFANO, JANE
 CLAFLIN, MAYFRED
 CONLON, JOSEPHINE
 CORNELIUS, ETHELWYN
 ELLIOTT, EMMA ROSE
 FULLER, KENNETH
 GROMMON, HELEN
 HADLOCK, ELOISE T.
 JUDWAY, THEODORE
 LYNCH, MARION C.
 MCCARGO, BERTHA

MOLYNEAUX, SILAS
 MOSEMAN, CLARENCE
 PAGE, ELIZABETH
 PEARSALL, ANNA
 RABOTNIKOFF, A.
 REIDY, MARGARET
 RIGGS, MIRIAM
 ROBINSON, LILLY
 STOUTENBERG, JANE
 STUTZ, HARRY F.
 SWEITZER, DOROTHY
 TEN BROECK, DELPHINE
 THRASHER, THELMA
 TUPPER, BARBARA
 WELCH, CATHERINE
 WILLIAMSON, FLORENCE
 WRIGHT, ADELAIDE C.

SCHOOL OF EDUCATION

DEVELOPMENT AND FUNCTIONS

Courses in Education at Cornell University were first offered through the College of Arts and Sciences in 1888. In the College of Agriculture, the Department of Rural Education was established in 1914 when a program in agricultural education was initiated as a supplement to certain offerings in rural education and nature study that had been available for several years.

As a means of integrating the activities in teacher education in the endowed and state colleges of the University, the Graduate School of Education was established in 1931. During the past decade several important steps have been taken: a five-year program for the preparation of secondary school teachers of academic subjects, of agriculture, and of home economics has been established, and programs in industrial arts, industrial education, art education, guidance, and administrative leadership have been initiated. In 1940 the name was changed to the School of Education primarily because of the increasing attention given to the professional curricula for which the School is responsible.

The School of Education as a University unit of organization assumes the responsibility for planning and administering, under the jurisdiction of the Graduate School of the University, professional programs leading to the degrees of M.Ed. and M.S. in Ed. and for giving instruction in the professional subjects. The former degree is given upon completion of the five-year program for the preparation of secondary school teachers. (See pp. 17-26.) The latter degree is granted upon completion of special programs for the preparation of principals, superintendents, counselors, and similar officers. These programs are professional in the sense that they are designed to prepare persons for the practice of a profession.

In addition, the staff members, working through the Graduate School, give instruction and direct research in those phases of Education in which they are especially proficient. These programs usually lead to Master's degrees other than the professional ones or to the Ph.D. degree. Although these two functions of professional instruction and scholarship may be recognized as different, they are, of course, interrelated. Professional practice frequently provides the problems about which scholarly activities are organized; the results of these scholarly activities are obviously of profound significance in professional practice.

INFORMATION REGARDING ADVANCED DEGREES

1. The Degrees of Master of Arts, Master of Science, and Doctor of Philosophy are administered directly by the Graduate School of Cornell University.

2. The degrees of Master of Education and Master of Science in Education are administered directly by the School of Education, under the jurisdiction of the Graduate School.

For detailed information regarding all advanced degrees, except the professional degrees of Master of Education and Master of Science in Education, consult the Announcement of the Graduate School.

ADMISSION

Students may be admitted to the Graduate School in one of the following three classes:

- (1) Resident Doctors;
- (2) Graduate students not candidates for degrees: "non-candidates";
- (3) Candidates for degrees.

Applications for admission, made on the proper forms, should be filed in the office of the Graduate School at the earliest possible date and, ordinarily, not later than August 10 and January 25 for entrance to the first and second terms, respectively; and not later than June 1, if possible, for entrance to the Summer Session.

An applicant who is not a graduate of Cornell University must submit complete official transcripts of all previous college studies.

To be admitted to the Graduate School, either as a non-candidate or as a candidate for a degree an applicant (1) must have received his baccalaureate degree from a college or university of recognized standing or have done work equivalent to that required for such degree; (2) as judged by his previous scholastic record, or otherwise, must show promise of ability satisfactorily to pursue advanced study and research; and (3) must have had adequate previous preparation in his chosen field of study to enter at once upon graduate study in that field.

Seniors in the colleges of Cornell University who have completed the academic requirements for the Bachelor's degree, and who qualify under (2) and (3), may, subject to the approval of the deans of their respective colleges, be admitted to the Graduate School.

Resident Doctors: Persons who hold the Doctor's degree or who have equivalent standing may, subject to permission from the Dean, be admitted to the Graduate School as Resident Doctors, for the purpose of engaging in advanced study and research in a field in which they have had adequate previous preparation. On the recommendation of the Dean, Resident Doctors are exempt from the payment of tuition and all fees except laboratory charges. Resident Doctors ordinarily are not permitted to attend classes.

Graduate Students Not Candidates for Degrees: Students admitted to the Graduate School usually pursue a course leading to one of the advanced degrees; but a properly qualified person who, for special reasons, does not wish to meet the requirements for a degree may be

admitted to the Graduate School as a "non-candidate" and arrange a program of graduate study suitable to his purposes. *For further information, consult the Announcement of the Graduate School.*

RESIDENCE

No student will be awarded any degree by Cornell University unless he has spent at least one full academic year, or the equivalent, in residence and study at the University as a candidate for that degree.

THE SPECIAL COMMITTEE

The work of each graduate student is in charge of a Special Committee. After the student has chosen his major and minor subjects, he must select one or more members of the faculty to represent each subject or field and to serve as the members of his Special Committee, the representative of his major subject being the chairman.

THE PROFESSIONAL DEGREES IN EDUCATION

Two professional degrees are offered, namely, Master of Education and Master of Science in Education. The former degree is granted upon the completion of a program of pre-service preparation for secondary school teaching; the latter, of a program for the preparation of special school officers. The programs leading to these degrees shall include such courses, seminars, projects, and investigations of an advanced or graduate nature as will develop ability to perform acceptably the professional duties required of the several types of educational workers.

General Regulations Governing Both Degrees:

1. Under the general administration of the Director, the candidate shall choose two or more members of the Graduate Faculty as a Special Committee to direct his work. The Special Committee of a candidate for the degree of Master of Education should include a representative from the student's teaching field. The Special Committee of a candidate for the degree of Master of Science in Education may include a faculty member representing a field other than Education. In each case the Chairman shall be a member of the Education staff.
2. The office of the School of Education acts as an office of record, and the candidate for a degree shall, within ten days of his registration, file in writing a statement approved by his committee showing his plan of work and course of study.
3. The maximum period allowed for the completion of all requirements shall conform to the regulations of the Graduate School.
4. Prior to scheduling the final examination, each member of the Education staff under whom the candidate has had instruction shall be informed of the proposed examination, shall be asked to express an opinion regarding the candidate's fitness for such examination, and shall be invited to be present and to take part in the examination.

Master of Education Degree. The program for this degree is planned for students seeking *pre-service* preparation for teaching in the secondary school. There may be two types of candidates for this degree, as follows:

1. Those who, early in their University work, make definite plans whereby preparation for teaching may be carried through the four undergraduate years and a fifth year of advanced professional study. The general pattern for this five-year program is presented on pages 17 and 18.

2. Those who wish to prepare for teaching even though they may have secured little or no professional training during their undergraduate years. Such persons may normally earn the degree by following a continuous program involving one summer session and the fifth year. The pre-professional and professional subjects shall be those included in the program outlined on pages 17 and 18.

Note: The attention of *experienced* teachers is directed to the opportunity that exists under Plan B of the M.A., M.S., and M.S. in Agr. degrees to secure, through a flexible program, additional preparation for secondary school teaching.

Master of Science in Education degree. The various programs leading to this degree are planned primarily for those who, having had experience in teaching or other type of educational work, wish to prepare themselves for such specialized forms of service as supervision, counseling, or the administration of an elementary, secondary, vocational, or technical school. For the present, teachers of industrial arts and of industrial and technical subjects should also ordinarily seek this degree.

1. An approved program for this degree, in which Education shall constitute the major portion, must have unity in terms both of purpose and of sequential development.

2. The courses taken by the candidate should fall into three groups designated A, B, C. The determination of the groups into which particular courses fall will depend upon the professional purpose of the candidate in his graduate study and an integration of courses to such purpose.

GROUP A. This group includes courses of a special nature and of immediate interest, such as the technical courses in English, in the languages (or a language), history, sciences (or a science), agriculture (or a division thereof), etc., and the professional studies appropriate to the special field. It is expected that at least a third of the candidate's program will fall in this group.

GROUP B. This group includes courses in the theory and science of education which will furnish the several types of background that are warranted by the nature of courses in Group A. Courses to the extent of one-third of the total may be chosen in this group. Educational Psychology, including Measurement, History and Philosophy of Education and other courses necessary to integration, such as general studies appropriate to the organization and administration of schools at the several educational levels, are representative of this group.

GROUP C. This group includes courses intended to meet the particular needs of the candidate not adequately met in Groups A and B. In certain cases as much as a third of the candidate's program should be taken in this group.

For the selection of courses in all the above groups, the candidate should consult his special committee, whose approval is necessary.

3. The candidate is not required to present a formal thesis or essay; but, if he does not do so, he is expected to complete a problem to the satisfaction of his committee. If the candidate seeking a degree through summer session attendance does not present a thesis or an essay that complies with the standards and requirements for the degrees of Master of Arts or Master of Science, including deposit of two bound copies in the University Library through either the Graduate School or the School of Education, a fifth summer of work shall be required. It is expected that normally all work will have been taken at Cornell University. However, under exceptional circumstances, any necessary study beyond the

required four summer sessions of residence may be done at some other institution of comparable standards but only when this work can be shown, to the satisfaction of the Special Committee, to be an integral part of the student's entire program.

4. The student's Special Committee, by the middle of the third summer of study (or by the end of the first term of graduate study), shall determine the fitness of the candidate to continue his candidacy for this degree through examination or such other suitable means as the committee may elect. The action of the Committee shall be recorded in the office of the School of Education.

OTHER MASTER'S DEGREES

Certain students in education may be interested in one of the following degrees: M.A., M.S., M.S. in Agr. There are two procedures by which any of these degrees may be secured, called Plan A and Plan B. Plan A is intended primarily for those candidates who, by suitably restricting their graduate work to a given field, wish to acquire some degree of competence in that field, frequently as a basis for further study and research or for professional purposes. Plan B is designed for those who wish a somewhat broader training than is permitted in Plan A.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Work leading to the Ph.D. degree is designed primarily to give the candidate a thoroughly comprehensive view of a field of knowledge; to train him in methods of research and scholarship in that field; and to develop qualities of leadership and a feeling of responsibility to add to the sum total of knowledge in his field. The requirements for the degree include, in addition to the requirements in foreign language, (1) six terms of residence as a graduate student, (2) the satisfactory completion, under the direction of a Special Committee, of work in one major subject and two minor subjects, (3) the presentation of an acceptable thesis, and (4) the passing of a qualifying examination and a final examination.

Major and Minor Subjects. A candidate for Ph.D. must select a major subject and two minor subjects properly related to the major subject. A list of approved major and minor subjects in each of the several fields of graduate study will be found in the *Announcement of the Graduate School*. *There are no requirements in semester hours for the Ph.D. degree.*

Requirements in Foreign Languages. Each candidate for Ph.D. must demonstrate his ability to read both French and German (or two languages, other than English, approved by his Special Committee), by passing in each of these languages an examination given by a member of the Language Examination Board.

A candidate for Ph.D. is expected to meet the foreign language requirements at the beginning of his candidacy at Cornell University for that degree. A minimum of seven terms of residence is required of a candidate who does not pass at least one language examination at this time. A minimum of three terms of residence is required after

completion of all language requirements, except in the case of a student admitted to candidacy with two or more terms of residence credit; in such a case, a minimum of two terms is required.

Language examinations passed within one month after registration are considered as being passed at the time of registration.

Additional requirements in foreign language may be made at the discretion of the student's Special Committee.

Residence. For Ph.D. a minimum of six terms of residence is required; or seven terms if the candidate does not pass one of the examinations in foreign language (see requirements in foreign language) on beginning candidacy at Cornell University. Upon the recommendation of the student's Special Committee residence up to a maximum of four terms may be credited toward the doctor's degree for work done in other universities.

Research under Personal Direction. A candidate for the Ph.D. degree who has demonstrated ability in graduate studies may, upon recommendation of his Special Committee and with the approval of the Dean, receive residence credit for research done during the summer under the personal direction of a member of the Faculty of the Graduate School. The privilege of working under Personal Direction will not ordinarily be granted to a student until he has completed at least a full year of graduate work in regular sessions. Application for the privilege must be accompanied by a statement from the member of the Faculty concerned, showing the number of weeks during which he is prepared to supervise the work of the student and the nature of the research to be done. To secure credit for such work, the student must register *in advance* at the office of the Graduate School, and the professor must certify to its satisfactory completion. A maximum of two terms may be earned in this way.

Credit toward the Ph.D. degree earned in Summer Sessions at Cornell or elsewhere is limited to two terms. A candidate who has already earned two terms of credit by work in summer sessions and who has demonstrated ability in graduate work, may, however, upon the recommendation of his Special Committee and with the approval of the General Committee, earn one more term of credit by work in Summer Sessions at Cornell with the privilege of credit for an additional term for research under Personal Direction. But the last year of residence must be in regular academic sessions and in successive terms.

Thesis Requirement. The thesis for the Doctor's degree must give evidence of the candidate's power to carry on independent investigation and must be satisfactory in style and composition. The thesis must be acceptable to the candidate's Special Committee in respect of both scholarship and literary quality. The completed thesis must be in the hands of the Special Committee at least fifteen days before the final examination for the Doctor's degree; and, during the five days immediately preceding this examination a typewritten copy approved by all members of the Special Committee, shall be on file in the office

of the Graduate School. *For further information regarding the thesis and the thesis abstract, see the Announcement of the Graduate School.*

Qualifying Examination. Each candidate for Ph.D. must pass a qualifying examination given by his Special Committee. The examination is ordinarily given at the end of the first year of graduate study, if that year is at Cornell. If the candidate has had one year or more of graduate work elsewhere, the qualifying examination should be given as soon as possible after his entrance into the Graduate School.

Before presenting himself for Final Examination B or C (see next paragraph), each candidate must have earned at least two terms of residence credit after the passing or the waiving of the qualifying examination.

Final Examination. Each candidate for Ph.D. must pass a final examination, conducted by his Special Committee and covering (1) the major and minor subjects and (2) the thesis and related topics. At the discretion of the Special Committee, the two parts of this examination may be given either separately or in combination.

When the two parts are given separately, an examination, dealing mainly with the major and minor subjects and designated as Final Examination A, may be given at the end of the fourth term of candidacy, or thereafter. Final Examination B, on the thesis and related topics and on such other work as the student may have done after completing Examination A, will be given after the residence requirement has been satisfied and the thesis has been completed and filed.

When the two parts of the final examination are given in combination, the combined examination, designated as Final Examination C, will be given after the residence requirement has been satisfied and the thesis has been completed and filed.

WORK IN SUMMER SESSION

The *Announcement of the Summer Session* contains a statement regarding graduate work offered during that period.

Credit toward advanced degrees may be earned in Summer Sessions in accordance with the following conditions and rules:

For A.M., M.S., M.S. in Agr., and Ph.D., residence during Summer Sessions may be counted at the rate of three Summer Sessions for one term of credit, and five sessions for two terms; for all other advanced degrees at the rate of two Summer Sessions for each term of credit.

Since Cornell University grants no advanced degree for less than two terms of residence and work in the Graduate School and since the minimum residence requirement for Master's degrees is two terms, work in Summer Sessions elsewhere can not be counted toward Master's degrees at Cornell.

The credit toward the Ph.D. that may be earned in Summer Sessions at Cornell University or elsewhere is limited to two terms. A

candidate who has demonstrated unusual ability in his graduate studies, however, may, upon recommendation of his Special Committee and upon approval by the General Committee, earn one more term by work in summer sessions at Cornell, with the privilege of credit for an additional term for research under personal direction. But the last year of candidacy for Ph.D. must be spent in residence at the University and in consecutive, regular sessions.

To obtain residence credit in the Graduate School for Summer Session work the candidate must register both in the Summer Session and in the Graduate School. He must file in the office of the Graduate School within one week after registration a statement-of-courses blank, as provided for students in the regular session.

TUITION FEES

UNDERGRADUATE COLLEGES

A student pursuing the five-year program will pay the tuition fee of the College in which he is matriculated as a candidate for the Bachelor's degree. Tuition rates are as follows:

Four hundred dollars in the College of Arts and Sciences.

Four hundred dollars in the College of Architecture.

Four hundred dollars in the College of Engineering.

Two hundred dollars in the College of Agriculture.*

Two hundred dollars in the College of Home Economics.*

For details see the *General Information Number*.

THE GRADUATE SCHOOL

A tuition fee of \$200 for the academic year is to be paid by all students registered in the Graduate School. It is payable in installments of \$100 at the beginning of each term.

Certain classes of students are exempt from the payment of the tuition fee. They are:

(1) Graduate students holding certain appointments as University Fellows or Graduate Scholars, and holders of certain temporary fellowships and scholarships.

(2) Resident Doctors upon recommendation of the Dean.

(3) Certain members of the instructing staff. See the *Announcement of the Graduate School* for 1942-43.

A member of the teaching staff registered in the Graduate School, whose salary equals or exceeds \$1500 shall pay tuition at the rate of three-quarters of the tuition regularly charged full-time students.

A matriculation fee of \$11, an administration fee of \$12.50 a term, a health and infirmary fee of \$7.50 each term, a Willard Straight Hall fee of \$5 each term, and a graduation fee of \$20 are also charged. An abstract fee of \$12.50 is required of each candidate for the Ph.D. degree.

Any tuition or other fee may be changed by the Board of Trustees to take effect at any time without previous notice.

*Under certain conditions residents of New York State are exempt from the payment of tuition in the College of Agriculture and the College of Home Economics.

GRADUATE FELLOWSHIPS, SCHOLARSHIPS, AND
ASSISTANTSHIPS

Financial assistance to students in the various phases of the work of the School of Education is available as indicated below. These aids are granted only to students matriculated in the Graduate School who, in addition to adequate preparation in general subjects, in an appropriate special field, and in Education, *have had a sufficient amount of successful teaching or other professional experience* that they are warranted in seeking further preparation for educational leadership. Experience is not required of candidates for Number 3 below.

Free tuition in the Graduate School is given in addition to the cash awards, except as indicated.

The amount and character of the service required of the holder of an assistantship varies, but information on this point may be secured upon request.

1. *Agricultural Education.* One \$1000 and one \$800 assistantship available normally only to those who are candidates for the Doctorate. It is essential that the candidate shall have had satisfactory teaching experience in vocational agriculture and, in addition, teacher training or supervisory experience in agricultural education.

2. *Education.* One \$900 assistantship in Human Growth and Development. The holder must have had extensive preparation in general and educational psychology, especially their genetic phases, and in biological sciences.

3. *High School Teachers in Training.* Ten free tuition scholarships to students in the fifth year of the five-year program who give promise of becoming outstanding secondary school teachers. Five of these scholarships are available to students who have received their undergraduate training in institutions other than Cornell.

4. *Industrial Education.* Two to four assistantships at not more than \$600 each available to persons preparing themselves for leadership in vocational industrial education.

5. *Nature Study and Science Education.*

a. One \$500 assistantship available to a person of experience preparing for a leadership position in the teaching of science.

b. Two \$625 assistantships available to persons of superior preparation and teaching ability for part-time assistance in the directed teaching program carried on in the Ithaca High Schools.

c. One tuition scholarship given by the late Anna Botsford Comstock and available to graduate students in nature study.

6. *Personnel Administration.* One \$750 and one \$500 assistantship available to persons well advanced in their preparation in psychology or personnel administration.

7. *Rural Education.*

a. Two \$1000 research assistantships available to persons desiring to prepare themselves for professional service in some

field for which the Department of Rural Education offers preparation. A well-planned project in research must be submitted. Normally these assistantships will be granted only to candidates for the doctorate who are within approximately one year of completing the requirements for that degree (including a reading knowledge of two foreign languages, preferably French and German).

b. Four \$350 assistantships available to students majoring in any phase of the work of the Department of Rural Education.

8. *Secondary Education—Academic Subjects*. One \$500 assistantship available to a teacher or administrator whose preparation and experience have been mainly in this field.

9. *Social Studies Education*.

a. One \$500 assistantship available to a person of experience preparing for a position of leadership in the teaching of the social studies.

b. Two \$750 assistantships available to persons of superior training and teaching ability for part-time assistance in the directed teaching program carried on in the Ithaca High Schools.

10. *Edward A. Sheldon Scholarship for Women Teachers*. This scholarship may be awarded "to any woman of suitable qualifications who needs this assistance", preference being given candidates in the following order: first, a woman graduate of the normal school at Oswego, New York; second, a woman graduate of any other normal school in New York State; third, a suitably qualified woman who is preparing to teach. The funds available will be apportioned among qualified applicants, usually not exceeding \$250 for any one scholarship. Free tuition is not included.

BUREAU OF EDUCATIONAL SERVICE

A Bureau of Educational Service is maintained by the School of Education. Its purpose is to assist men and women who have studied or are studying at Cornell University to secure positions in educational work. Such persons are invited to register with the Bureau. Address: Bureau of Educational Service, 102 Stone Hall, Ithaca, N. Y.

THE SUMMER SESSION

To meet the demands of the present emergency, Cornell University will offer in 1942 a greatly expanded program of instruction divided into four periods, one of six weeks, two of five weeks each, and one of eleven weeks. In the six-week session, which will begin on June 29, courses for teachers, school administrators, and graduate and undergraduate students will be offered. Prospective students should apply to the Director of the Summer Session for a copy of the Announcement which will be available on May 1.

TYPES OF PROFESSIONAL WORKERS FOR WHOM PROGRAMS ARE OFFERED

The School of Education prepares workers for many different types of positions. Some of these workers will go into general education; others into specialized fields. Some will find their professional opportunities in the urban centers; others in the rural areas. In setting up its various curricula, the School of Education naturally cooperates with various units of the University, the major ones being the Colleges of Agriculture, Architecture, Arts and Sciences, Engineering, and Home Economics.

Curricula for the several types of workers in the urban centers correspond, in general, to such curricula elsewhere. In rural education, the offerings undertake to adapt the general principles of education to the special conditions found in rural areas (defined in New York State as communities with a population of less than 4500). In recognizing that these special conditions make adjustments in the program of preparation desirable, the fact is not overlooked that elements common to all education usually predominate in any curriculum. Among those given special attention as rural workers are: teachers, supervisors, and directors of agriculture; principals of central, consolidated, and village schools; county, district, and village superintendents; and specialists in rural education for normal schools, teachers colleges, universities, and state education departments. Courses for elementary teachers are given only on the graduate level. The School of Education also renders assistance to certain departments in the Colleges of Agriculture and Home Economics in the preparation of such rural workers as 4-H club leaders and county agricultural and home demonstration agents. In brief, Rural Education at Cornell University aims to prepare various types of leaders competent to deal understandingly with those problems, both general and special, found in rural America. In all curricula, students are given opportunity to become acquainted with the educational problems and practices found in representative New York communities. Notable among these resources for effective teacher preparation is the system of central rural schools that offers, in most communities, exceptional opportunities for the education of rural people.

A list of the various workers for whom programs are offered is given herewith.

1. Teachers and Supervisors of:

- a. Academic subjects: English, French, German, Latin, Mathematics, Science, Social Studies (See pages 18 and 19)
- b. Agriculture (See pages 19 and 20)
- c. Art (See pages 23 and 24)
- d. Elementary Schools (on the graduate level only)
- e. Home Economics (See pages 20 and 21)
- *f. Industrial subjects (See pages 24 and 25)
- g. Industrial Arts (Summer Sessions only) (See pages 25 and 26)
- *h. Nature Study

*Outlines of special curricula or suggestions regarding desirable courses may be secured upon request.

2. Administrators:
 - a. Principals of elementary schools (See pages 27 and 28)
 - b. Principals of secondary schools (See pages 27 and 28)
 - c. Principals of small village, central, or consolidated schools (See pages 27 and 28)
 - *d. Principals of vocational or technical schools (See pages 27 and 28)
 - *e. Directors of vocational education (See page 29)
 - *f. Superintendents (County, district, village) (See pages 28 and 29)
3. Other special officers:
 - *a. Guidance counselors (See pages 29 and 30)
4. Officers concerned with teacher education:

Such officers must usually secure preparation represented by a Ph.D. degree or its equivalent. For each student an individual program is planned by the student and his Special Committee. (For approved major and minor subjects, see the *Announcement of the Graduate School*). At the present time preparation on the Doctoral level may be secured in at least the following fields:

 - a. Teacher-training in certain academic subjects, particularly nature study and science education, and social studies.
 - b. The vocational fields of agriculture, homemaking, and industrial education.
 - c. Certain general education fields, such as elementary education, rural education, secondary education, and such special education subjects as administration, educational psychology, home economics education, and supervision.

THE FIVE-YEAR PROGRAM FOR SECONDARY SCHOOL TEACHERS

This program is recommended for all prospective teachers of secondary school subjects and is required of all prospective teachers of academic subjects preparing at Cornell University to enter teaching in New York State after December 31, 1942. The general pattern follows:

Pre-Professional studies

Freshman Year	
Social Science A and B.....	6 hours
(Freshman or Sophomore Year)	
Sophomore Year	
Human Growth and Development.....	6 hours
<i>First selection of prospective teachers</i>	

Professional studies

Junior Year	
100. Educational Psychology.....	3 hours
120. Social Foundations of Education.....	3 hours
<i>Second selection of prospective teachers</i>	
Senior Year	
The Art of Teaching.....	10 hours
Academic subjects, Course 130	
Vocational Agriculture, Courses 131 and 132	
Home Economics, Courses 135 and 136	
<i>Final selection of prospective teachers</i>	

*Outlines of special curricula or suggestions regarding desirable courses may be secured upon request.

Fifth Year

200. Apprentice teaching.....	6 hours
210. Special Problem in Teaching.....	2 hours
220. Philosophy of Education.....	2 hours

(The first four years of this sequence satisfy the present requirements for certification in vocational agriculture and home economics.)

The remainder of the student's program will be made up of: (a) courses required by the college in which the student is registered; (b) courses in the field or fields in which he plans to teach; (c) courses helpful in developing understandings and appreciations of particular significance to teachers.

TEACHERS OF ACADEMIC SUBJECTS

Graduation Requirements of the College of Arts and Sciences. At Cornell University all prospective teachers of academic subjects, except students in the College of Agriculture preparing to teach biological science, will register in the College of Arts and Sciences and must meet the graduation requirements of that College. In brief, the College requires the completion of a full year course in English, foreign languages, history, and laboratory science. The details may be secured from the College Announcement.

Teachers of science who stress the biological aspects of this field may be prepared either through the College of Arts and Sciences or through the College of Agriculture. Students in the College of Agriculture must, of course, meet the graduation requirements of that College.

Preparation in the Teaching Field. The student must select, after the first year of residence and before registering for the first term of the third year, a major field of study. The specific requirements vary somewhat according to the field but, in general, course work to the extent of approximately 24 hours in the major subject and 18 hours in related subjects is required.

As an aid to the prospective teacher, programs in the academic subjects have been established for the four undergraduate years which meet college requirements and provide the preparation needed for teaching in the secondary schools. These programs vary in extent and in the number of prescribed courses. It is desirable that some one of the combination programs below be selected, although other combinations may be arranged to suit individual preferences.

English and Public Speaking. The program in English follows closely the pattern prescribed for students majoring in that subject. Composition, reading of expository prose, and introduction to drama and fiction will comprise the work of the sophomore year. These aspects of the subject will be developed further in the upperclass years and, in addition, the student will select the literature of some period and the works of some author for intensive study. Nine hours in public speaking must be included in the related subjects. The total requirement of the major is 45 hours. Students primarily interested in speech and dramatics should major in public speaking and supplement that training with considerable work in English.

Foreign Language. In foreign language, concentration in Latin and French is provided which satisfies the requirements of the major in either subject. Additional preparation in a third language is recommended since the object is to prepare a teacher of language rather than a specialist in a single subject. The course work in Latin and French totals 54 hours.

Mathematics. Preparation for teaching mathematics is based on the major requirement in the subject: 9 hours of analytic geometry and calculus plus 15 hours of advanced courses. The student should also complete the 30 basic hours in science.

Science. The program in science is based on 12 hours of biology, 12 hours of physical science, and 6 hours of geology. Approximately 24 additional hours of advanced courses are necessary to satisfy the major requirements in physics or chemistry or one of the biological sciences. The prospective teacher of science will find it to his advantage to meet the minimum certification requirement of 15 hours in mathematics.

Social Studies. In social studies the student may major in history, economics, government, or sociology, although concentration in history is preferable. The basic program must include 18 hours of history, and 18 hours of social science. Depending upon the major subject selected, the number of hours in the program will aggregate from 48 to 60.

In the fifth year the prospective teacher of an academic subject may select, under the guidance of his Special Committee, approximately 20 hours of advanced courses and seminars in his teaching field.

General Electives. After meeting the minimum requirements described above, the student still has opportunity to elect courses according to his needs and interests. These electives may, with the approval of the student's adviser, be chosen from professional courses, from the student's teaching field, or from other University offerings.

TEACHERS OF AGRICULTURE

Graduation Requirements of the College of Agriculture. Students preparing to teach in the field of vocational agriculture will register in the New York State College of Agriculture and must meet the requirements of that College for graduation as a part of the five-year program. The College of Agriculture requires the completion of the following program of courses: orientation, 1 hour; hygiene, 2 hours; English, 6 hours; botany, biology or zoology, 6 hours; chemistry or physics, 6 hours; geology, 3 hours; basic sciences and social studies, 24 hours; electives in the College of Agriculture, 54 hours; general electives, 20 hours.

Technical Studies in Agriculture and Related Sciences. In the present plan for the preparation of prospective teachers through the New York State College of Agriculture, a total of 68 semester hours in Agriculture and Related Science is required. Thirty-six of these hours must be distributed in five broad fields as follows:

- Agricultural Economics and Farm Management.
- Agricultural Engineering and Farm Mechanics.
- Animal Husbandry and Poultry Husbandry.
- Farm Crops and Horticulture.
- Soil Technology.

In addition to a minimum of 36 hours of credit taken in the above five fields, the candidate must present 24 hours of credit in agricultural courses approved by his adviser.

During the fifth year advanced preparation in one or more of the above five fields of agriculture will be possible to the extent of approximately 20 hours.

To assist the student in meeting the broad requirements of the five fields and the elective hours indicated, a plan is set up for the use of students and their advisers. This plan provides for courses as indicated in the above 36-hour requirement and as many specialized elective courses as are consistent with the demands of the types of agriculture in New York State.

General Electives. The prospective teacher will find opportunity to select, with the approval of his adviser, such courses from agriculture, science, or other University offerings as will contribute further to his preparation for teaching.

TEACHERS OF HOME ECONOMICS

Graduation Requirements of the College of Home Economics. The New York State College of Home Economics requires the completion of the following: English, 6 hours; hygiene, 2 hours; basic sciences, 30 hours, of which 9 are to be in the biological sciences, 9 in the physical sciences, and 12 in the social sciences; home economics, 40 hours; electives, 42 hours, of which 24 may be in any College of the University; 18 hours must be in courses offered by the Colleges of Home Economics, Agriculture, and Veterinary Medicine.

Preparation in Home Economics and Related Subjects. In the majority of schools, instructors in home economics teach all phases of homemaking. Even in those schools in which homemaking is departmentalized, it is desirable that each teacher have a broad view of the entire field. To help achieve this, the following subject matter is suggested, adjustment being made according to individual background and needs:

Family Relationships and Child Study. Part of the work in family relationships may be covered through courses dealing with The Family. Part should be taken in Home Economics. Child study may include work in Child Psychology, and should include observation of child behavior and guidance in a nursery school, together with some participation in working with children through a nursery school, through play groups, or in homes.

Health in Home and Community and Home Nursing. This should include study of home and community hygiene, first aid and emergencies in the care of the sick at home. A college course is required, rather than a Red Cross course in first aid.

Household Management and Economics of the Household. Study in this field should be concerned with the management and economic principles as they apply in the home. Consideration should be given to the management of the house with relation to family living. Some experience in practical problems should be included. It is also desirable to develop that phase of managerial ability involved in the interrelationships in the home and the community.

Nutrition and Food Preparation. This should include nutrition for all ages, the science of food preparation, food buying, family meals, and the food budget.

Art and Home Furnishing. This may include courses in applied art, or art principles, or design and color, or other types of courses in applied art as home crafts. The work in furnishing and house planning should emphasize furnishing in relation to family living.

Clothing and Related Subjects (Design, Textiles, Construction). This should include an understanding of the essentials of personal grooming, care of clothing, the personal wardrobe, clothing for the family, the clothing budget, the construction of clothing, and the design of costume. The textiles study should include textiles used in clothing and home furnishings.

Related Sciences. This should include applied chemistry, applied physics, bacteriology, and physiology.

In addition to the above requirements in suggested subject matter in Home Economics, a student preparing to teach should plan her college program and her experiences during the summers so as to build an understanding of herself, of children, and of adults. She should be able to recognize in homes and communities the significant situations and problems to which home economics applies, to use home economics to achieve sound practices in her own living, and to give evidence of a growing skill in helping others to interpret and apply its findings and standards to the solution of individual, home, and community needs.

In the fifth year the prospective teacher of Home Economics will have opportunity to secure approximately 20 hours of advanced instruction in her teaching field.

General Electives. The student may select, with the approval of her adviser, such courses from home economics, science, or other University offerings as will enlarge her understanding of her teaching responsibilities.

DIRECTED AND APPRENTICE TEACHING

The five-year program provides for two types of practical work, looking toward the development of ability to perform successfully the various responsibilities of a teacher.

The first type involves observation and directed teaching which is completed usually during the undergraduate years. It is designed to provide opportunity to the student to associate himself with skillful teachers, who are usually employees of both the University and local boards of education, that he may learn, firsthand, to understand what is required in handling classroom situations, particularly what is involved in efficient teaching, and what is required to utilize the resources of a community to the greatest advantage.

Apprentice teaching, given in the fifth year of the five-year program, is the second type of participation and the final step in the pre-service preparation through experience. It is a continuation of directed teaching, but at this stage of participation, the student assumes full teaching responsibility under the general supervision of the principal and the supervising teacher, and comes to perform in the school and

community all of the functions of a regular teacher, including such community and other studies as good teaching requires.

Observation and directed teaching are conducted in selected schools of Ithaca and of nearby communities. Apprentice teaching also will be done in off-campus schools, selected primarily to provide better than average opportunity for experience and growth. Students engaged in apprentice teaching will live in the school community during the period of this experience and will be expected to participate in community life.

GUIDANCE AND SELECTION

In most cases the student will be assigned to a regular college adviser on entrance. In order that the prospective teacher may secure advice regarding his professional program, he should, as early as possible in his university experience, consult with the official adviser in his teaching field. A list of these advisers is given on page 31.

As the student proceeds in his preparation for teaching, appraisal will be made of the development of his abilities, understandings, appreciations, and of such other qualities as make for success in teaching. Special determinations will be made at three principal points as to the fitness of the candidate to continue: (1) at the end of the sophomore year, (2) prior to the period of student teaching in the senior year, and (3) prior to apprentice teaching in the senior and fifth years. Committees responsible for selection in the several fields will be concerned with the personal and physical fitness of the candidate, his emotional and intellectual equipment, his general and special academic competence, his familiarity with current affairs, and his ability to use the English language.

Knowledge gained of the student by his advisers and his instructors, supplemented by the health record and the more formal measures such as psychological and personality tests, will provide information useful in judging the strictly personal factors involved. In general each student will be expected to maintain a standing in scholarship at least equal to the average of his college. Competence in his field of teaching and his knowledge of current affairs will be tested at the close of his fourth year of residence. A steady growth in the use of English will be expected of each student. Standards of accomplishment will be set up for the several groups of prospective teachers, beginning in the freshman year and checked at frequent intervals throughout the five-year period of preparation. Training in the organization of materials, in platform speaking, and in reading will be required. Opportunity to discover and remedy defects in speech will be provided.

These requirements and standards may be supplemented by additional requirements in the several fields of training in order to insure a high degree of competence at all levels and to meet the special demands in different areas of teaching. Students entering the program

later than the sophomore year will be expected to meet the standards and requirements indicated above.

REGISTRATION AND DEGREES

As previously indicated, the student preparing to teach will register for the first four years in the appropriate undergraduate College. In the fifth year he will register in the School of Education.

At the end of four years he will normally receive the Bachelor's degree appropriate to his college: in Arts and Sciences, Bachelor of Arts; in Agriculture and Home Economics, Bachelor of Science. Upon the completion of the five-year program, the degree of Master of Education will be conferred.

THE COMPREHENSIVE EXAMINATION

At the end of the fifth year the student will be required to pass a comprehensive examination. This examination, which may be written or oral, or both, will be given by the student's Special Committee, and will test his knowledge of his teaching field, his understanding of educational theory and practice, and his ability to give instruction to secondary school pupils. A prerequisite to the examination shall be demonstrated skill in classroom situations.

REQUIREMENTS FOR STUDENTS ENTERING PROGRAM IN FIFTH YEAR

Students late in deciding to prepare for teaching and students transferring from other institutions at the end of the fourth year whose preparation in their special field is adequate can ordinarily satisfy the requirements of the program in one summer session and the fifth year. In general, such students are expected to meet the full requirements of the program, either by taking the specific courses indicated or by offering equivalent credit.

Correspondence with Dr. W. A. SMITH, Chairman of the Committee on Selection, is invited.

ART, INDUSTRIAL EDUCATION, AND INDUSTRIAL ARTS

Because of special conditions prevailing in Art, Industrial Education, and Industrial Arts, certain modifications in the regular five-year program have been made. These are described herewith.

TEACHERS OF ART

The School of Education cooperates with the College of Architecture in the preparation of teachers of Art. Students desiring to prepare in this field should register in the College of Architecture as candidates for the degree Bachelor of Fine Arts. The curriculum is as follows:

		<i>Hours</i>	
		<i>1st</i>	<i>2nd</i>
		<i>Term</i>	<i>Term</i>
FIRST	English.....	3	3
YEAR	Fine Arts 1a and 1b.....	3	3
30 hrs.	Arch. 510 (Descriptive Geometry).....	3	3
	Arch. 309 (Elementary Drawing & Painting).....	3	3
	History—Elective.....	3	3
SECOND	Human Growth and Development.....	3	3
YEAR	Social Science A & B.....	3	3
30 hrs.	Arch. 300 (Elementary Composition).....	3	3
	Arch. 800 (Textile Design, Costume Design, Crafts).....	3	0
	Fine Arts 10a and 10b (History of Arch.).....	3	3
	Public Speaking 45—Stage Craft.....	0	3
THIRD	Ed. 100 Educational Psychology.....	3	0
YEAR	Ed. 120 Social Foundations of Education.....	0	3
34 hrs.	Arch. 311 (Intermediate Drawing and Painting).....	3	3
	Arch. 301 (Intermediate Composition).....	3	3
	Arch. 120 (Interior Design and Decoration).....	2	2
	History of Art—Elective.....	3	3
	Elective.....	3	3
FOURTH	Ed. 130 The Art of Teaching.....	3	3
YEAR	Arch. 314 (Advanced Drawing and Painting).....	6	6
30 hrs.	Arch. 304 (Advanced Composition).....	4	4
	Arch. 325 (Graphic Arts).....	2	0
	Arch. 324 (Painting Technics).....	0	2
FIFTH	Ed. 130 The Art of Teaching.....	2	2
YEAR	Ed. 220 Philosophy of Education.....	0	2
31 hrs.	Arch. 315 (Drawing and Painting).....	6	0
	Arch. 305 (Composition).....	5	0
	Elective.....	3	3
	Thesis.....	0	8

The technical work in Art, History of Art, and related subjects, required of such students, is the equivalent of more than three full years of work, with the remainder of the time being spent on general education and professional education.

The technical work in Art is given by the members of the staff of the Department of Painting and Sculpture who are all practicing artists. It affords a training in the fundamentals of design, drawing, and painting, which aims to equip the student as a competent practitioner of his art, as well as a teacher.

TEACHERS OF TECHNICAL AND RELATED TECHNICAL SUBJECTS

The permanent state certificate for teachers of technical subjects requires one full year of study in addition to undergraduate work of a technological nature, supplemented by three years of practical experience in the technical field for which the certificate is desired.

To meet the needs of this group Cornell University has provided programs of study leading to the degrees of Master of Science (Plan B), Master of Education, and Master of Science in Education. The degree which the student should seek will depend upon his purpose and his background of training and experience. Those who have had some

teaching experience, but who have not met the certification requirements of the State, should normally register for the degree of Master of Science (Plan B). Graduates of technical colleges, either at Cornell or elsewhere, who have not had teaching experience should seek the degree of Master of Education. Those who wish to make some progress toward satisfying the state requirements in administration and supervision (see pages 27-29) at the same time that they are completing the requirements for teaching should, usually, work toward the degree of Master of Science in Education.

No fixed curricula are prescribed. The program for each student is worked out with his special committee, the subjects required in the fifth year being selected upon the basis of the student's needs. Courses in the fifth year of the program must, naturally, be of an advanced nature. The entire program will include courses in basic sciences, engineering or other technical fields, economics, labor problems, general and special courses in education, personnel administration, and the like. This work is offered during the regular academic year and in the summer session.

Because of conditions peculiar to this field and the great variations in types of background of candidates, an advisory committee on admissions has been appointed to advise with the committee on admissions to the School of Education concerning candidates for advanced study. This advisory committee is made up of one representative from the College of Engineering, one from the general education faculty of the School of Education, one from industrial education, and one from the Bureau of Industrial and Technical Education of the State Education Department.

Candidates are advised to make application for admission to graduate work in this field as early as possible so that the committee may have adequate time for the consideration of their applications.

TEACHERS OF INDUSTRIAL ARTS

At the present time Cornell offers opportunities in this field only during the Summer Session. Those preparing to teach Industrial Arts will attend the State Teachers College at Buffalo or Oswego, or some institution offering an equivalent program, for the usual period of undergraduate work. Upon the satisfactory completion of such a curriculum, Cornell will admit, upon a selective basis, as many teachers as the facilities of the University permit.

The program outlined below is based on the assumption that industrial arts education in the secondary schools should deal increasingly with the interpretation of industrial processes and practices as a phase of general education, and that these processes and practices are becoming more complex year by year. This seems to require that industrial arts teachers understand more thoroughly both the activities of industrial life and the trends in industrial and social developments.

The curriculum is as follows:

	<i>Credit Hours</i>
Professional Education	
Philosophy of Education.....	2
Seminar in Industrial Arts Education with courses for master teachers or for supervisors chosen from such offerings as.....	4-6
a. Teaching problems in industrial arts	
b. Curriculum and course of study revision	
c. Research problems in industrial arts	
d. Administration and supervision of industrial arts	
Project-Development Laboratory (Advanced shop-laboratory work of creative type).....	4-6
Critical Study or Thesis.....	2-6
Electives.....	0-4
Technical	
Industrial Relations.....	2
Materials, Processes, and Tools of Industry.....	4-6
Recent Developments in Technology.....	2-4
Electives (Physics, mathematics, meteorology, engineering).....	0-4
Social Studies	
Recent Social Trends.....	2
General Electives	0-8

OTHER CURRICULA

GRADUATE CURRICULA FOR EXPERIENCED WORKERS IN HOME ECONOMICS EDUCATION

Graduate study in Home Economics Education will follow a flexible plan which takes account of the background and experience of the individual and the demands of the position she expects to fill.

Curricula are planned for persons who wish to qualify themselves further as (a) teachers in secondary schools, including those who wish to earn a permanent teaching certificate in New York State, (b) supervisors, (c) extension workers, (d) college instructors. Those seeking *pre-service* preparation for teaching home economics in the secondary schools will follow the five-year program as described in this Announcement.

It is expected that a student undertaking graduate study will need to evaluate her professional preparation in home economics, in education, and in related fields, with members of the staff in order to determine what courses and other experiences will best meet her needs. Since it is assumed that a worker in home economics is engaged in education in home and family life, a program constituting selections from the following areas would be appropriate:

- A. Home Economics
 - Economics of the Household and Household Management
 - Family Life
 - Foods and Nutrition
 - Household Art
 - Textiles and Clothing

Selections* from these fields would take account of the student's need to strengthen her earlier preparation in one or more fields and/or broaden the scope of her background in home economics. Courses dealing with family problems and basic material needed for an understanding of these problems should be especially emphasized.

B. General Phases of Education

- Curriculum
- Philosophy
- Guidance
- Psychology
- Measurement
- Social Foundations of Education
- Supervision
- Human Growth and Development
- Social Studies

C. Home Economics Education

- Methods
- Curriculum and program planning
- Supervision
- Teacher education
- Studies and research
- Evaluation
- Group participation
- Field experience

In addition to general courses covering the above areas, a special course will be offered for each of the following groups: teachers, extension workers, supervisors, and college instructors.

The following Master's degrees offered by the University are available to *experienced* home economics educators: M.S. and M.S. in Ed. As described in the *Announcement of the Graduate School*, there are two plans for the M.S. degree. Plan A offers intensive work in one of the fields of home economics or of education; Plan B offers more extensive possibilities of work in several fields of home economics, or of education, or both. The degree, M.S. in Ed., is especially suitable for supervisors and other administrators, and for those beginning work in teacher education. In the work for either of these degrees, opportunity is allowed for study in related fields.

Those preparing for college instruction will usually find it necessary to matriculate for the Ph.D. degree.

PRINCIPALS

The following programs prepare for three kinds of principalships. Each program is divided into three groups of courses: (1) a required group of 12 hours; (2) a preferred-elective group of 6-12 hours; (3) a general elective group of 6-12 hours. While these programs have been prepared with New York certification requirements in mind, they may be adapted to meet the requirements of other states.

*See Announcement of the College of Home Economics.

	Type of principal's certificate		
	Elementary	High School	12-grade
1. Required group—12 hours			
1. Administration			
General (R. E. 261).....			x
High School (Ed. 5).....		x	
Elementary school (Ed. 23).....	x		
2. Curriculum (R. E. 276).....	x	x	x
3. Educational Measurements (R. E. 251)...	x	x	x
4. Mental Measurement (Ed. 7).....	x	x	x
5. Seminar (R. E. 265).....	x	x	x
6. Supervision (R. E. 263).....	x	x	x
2. Preferred elective group—6-12 hours (Selection will be made for each type of certificate in the light of the candidate's needs)			
1. Child Activity Education (R. E. 122)			
2. Economics and the School (Ag. Ec. 238)			
3. Elementary Curriculum (R. E. 276a)			
4. Elementary Supervision (R. E. 266)			
5. Extra-class Activities (Ed. 11)			
6. Guidance (Ed. and R. E. 28)			
7. High School Administration (advanced) (Ed. 10)			
8. High School Curriculum (R. E. 276b)			
9. Mental Hygiene (Hygiene 1)			
10. Problem Child (Ed. 12)			
11. Philosophy of Education (R. E. 294)			
12. Principles and Practices of Vocational Education (R. E. 267c)			
13. School and Community (R. S. 124)			
14. School Finance (R. E. 262a)			
3. General Elective Group—6-12 hours			

These electives may be chosen from academic subjects, from Group 2, or from other advanced professional courses. Selection should be so made that an integrated program for each candidate will be achieved.

New York State provides for both *provisional* and *permanent* certificates. Since there are many specific requirements for the different types of certificates, the interested student should study Certification Bulletin No. 1 of the State Education Department, entitled "Certificates for Administrative and Supervisory Service."

SUPERINTENDENTS

New York State now requires that a superintendent, whether of a rural or of an urban district, shall be a graduate of a college or of a university and, in addition, that he shall have completed thirty semester hours of graduate work. "The total program of undergraduate and graduate courses shall include twenty semester hours in approved Education courses, eight of which shall be in courses related to administration or organization and in school supervision."

The complexity of modern educational problems requires that the educational leader not only be well versed in educational theory and practice but that he have a broad background in the fields of econom-

ics, sociology, and government. Cornell's resources are unusually complete for the preparation of district and county superintendents (or other types of rural school administrators) and superintendents of villages and small cities.

SUPERVISORS AND ADMINISTRATORS OF INDUSTRIAL AND TECHNICAL EDUCATION

There is a growing need for trained personnel to supervise and administer programs of industrial and technical education in the public schools. Many different types of workers are involved. Among them are:

- State supervisors of industrial and technical education.
- City directors of vocational education.
- Principals of industrial and technical high schools.
- Supervisors of technical subjects.
- Administrative assistants in industrial or technical high schools.
- Department heads or first assistants in industrial or technical high schools.
- Principals of evening industrial or technical schools.
- Directors or department heads of technical institutes.

For this group Cornell University offers programs of studies designed to develop competence in dealing with situations with respect to the administration and supervision of industrial and technical education, and also to develop understanding of the problems of the administration and supervision of general secondary education. The program for each student is worked out with his special committee, based upon his background and his special needs. Courses and seminars are provided, as well as opportunity for research in the field of the special interest of the student.

The program provides offerings which meet the New York State requirements for certification and leads to the degree of Master of Science in Education.

The advisory committee on admissions described under the program for teachers of technical subjects also examines the credentials of persons seeking admission to graduate study in administration and supervision. Candidates should file their applications well in advance of the date on which they plan to begin work.

Work in this field is offered both during the regular school year and the summer session.

SCHOOL COUNSELORS AND OTHER EDUCATIONAL PERSONNEL OFFICERS

In New York State, the law provides that the school authorities of each school district may establish and maintain a guidance bureau for the purpose of providing information and counsel for pupils regarding opportunities.

To be certificated provisionally in New York State a person must hold a certificate valid for secondary school teaching, must have had three years of approved and appropriate experience, one of which shall have been in secondary school teaching and one in fields other than teaching, and six semester hours in the principles and techniques of guidance. The experience other than teaching should be of a type that will give the candidate an understanding and appreciation of the problems that pupils face upon leaving school. Such experience should be in appropriate industrial or commercial pursuits. In the case of an applicant who has completed three or more years of teaching, the requirement of a year or more of experience other than teaching may be satisfied during the first five years of service as a counselor. Likewise the applicant who has completed three or more years of service other than teaching may satisfy the one-year requirement of teaching experience during the first five years of service as a counselor. A permanent certificate may be secured upon the completion of one year of approved preparation beyond the Baccalaureate degree. During this year of study the student is expected to complete courses in educational and occupational opportunities, methods and materials of teaching occupational classes, mental hygiene, educational or mental measurements, psychological tests in guidance, sociology, economics, and labor problems.

A person who is prepared for secondary school teaching and who has the requisite experience may complete, at Cornell University, the requirements for a counselor's provisional certificate in New York State during either the summer session or the regular academic year. He may complete the requirements for a counselor's permanent certificate through residence study of one year and one summer session. Normally, it should be possible for him to earn the degree of Master of Science in Education at the same time that he satisfies the State requirements for a permanent certificate.

A person who wishes to prepare himself on more advanced levels for either public school or college personnel service will find it possible to secure advanced work in guidance and personnel, and in related fields such as psychology, economics, and sociology.

PRE-PROFESSIONAL AND PROFESSIONAL COURSES FOR SECONDARY SCHOOL TEACHERS

Students planning to teach should consult with official advisers as follows:

Academic Subjects except Science:

Associate Professor M. L. Hulse, 251 Goldwin Smith

Agriculture:

Professor R. M. Stewart, 205 Stone

Art:

Associate Professor J. A. Hartell, 303 White

Home Economics:

Professor Cora E. Binzel, 209 Stone

Industrial Education:

Professor L. A. Emerson, Sibley Dome

Science:

Assistant Professor P. G. Johnson, 16 Fernow

A, B. Introduction to Social Science. Throughout the year. Credit three hours a term. Open to freshmen. Course A (first term) is a prerequisite to course B (second term). Associate Professor WOODWARD and Drs. ADAMS, HUTCHINS, TRUMAN, and WEINTRAUB. M W F 10, 12; T Th S 11. Rooms to be announced.

A study of the social organization of communities and of nations, designed to introduce the student to the fields of economics, government, sociology, and anthropology. Attention will be directed successively toward (1) a primitive community, (2) the New England town of the seventeenth century, (3) modern communities, urban and rural, and (4) the nation as a form of social organization. Fee for material furnished, \$3 each term.

Students should apply for assignment to sections at Barton Hall, first term; at 108 McGraw Hall, second term.

A, B. Human Growth and Development. Throughout the year. Not open to freshmen. Credit three hours a term. *Prerequisite*, a laboratory science, preferably general biology or zoology. Course A (first term) is *prerequisite* to Course B (second term). Professors FREEMAN and PAPEZ and assistants. Lectures, T Th 9. Recitations, S 9 or another hour by arrangement. *Goldwin Smith C.* (In cooperation with the College of Arts and Sciences.)

The aim of this course is to integrate information about structural, physiological, behavioral, and intellectual aspects of growth and development. Emphasis is placed on those aspects of growth and development that will help educators to understand human individuals as functioning organisms in a social environment. The materials of the course are selected from pertinent fields, including anatomy, embryology, genetics, neurology, physiology, hygiene, sociology, cultural anthropology, and developmental psychology. Fee, \$1 each term.

100. Educational Psychology (Ed. and R.E.) Either term. Credit three hours. *Prerequisite*, Human Growth and Development. Not open to freshmen. First term, Section 1, M W F 11. Professor FREEMAN. *Goldwin Smith 234*; Section 2, M W F 8. Professor KRUSE and Mr. ———. *Plant Science 141*. Second term, Section 1, M W F 10. Professor FREEMAN. Section 2, M W F 9. Professor KRUSE and Mr. ———. *Warren 125*.

Students should list section 1 as 100b and section 2 as 100a on their study cards. For students in the College of Agriculture 100b does not count as an agricultural elective. All students enrolling in this course are to report at *Goldwin Smith 251* on registration day for assignment to sections.

Consideration of the outstanding facts and principles of psychology bearing upon the problems of education.

120. Social Foundations of Education. (Ed. and R.E.) Either term. Credit three hours. First term, section 1, M W F 9. Professor MOORE. *Boardman 121*; Section 2, T Th S 11. Associate Professor ANDERSON. *Boardman 121*. Second term, Section 1, M W F 9. Associate Professor ANDERSON. *Boardman 121*. Section 2, T Th S 11. Professor MOORE. *Boardman 121*.

Students who take this course with Professor Moore should list it on their study cards as 120a; those who take it with Associate Professor Anderson should list it as course 120b. For students in the College of Agriculture 120b does not count as an agricultural elective. All students enrolling in this course are to report at *Goldwin Smith 251* for assignment to sections.

This course evaluates the school as a social institution and emphasizes the role of the school in preserving American democracy.

130. The Art of Teaching. (Ed. and R.E.) Throughout the year. Credit five hours a term. Prerequisite, Educational Psychology and Social Foundations of Education. Open only to selected seniors preparing to teach academic subjects. Associate Professors HULSE and ANDERSON, Assistant Professor JOHNSON, Dr. —, Mr. ELDERED, and assistants. First term, T Th 2. *Goldwin Smith 227*. Second term, M 4. *Goldwin Smith 227*. Joint meeting with students of agriculture and home economics, first term, alternate Wednesdays, 4:15-5:30. Other hours to be arranged.

In the first term primary emphasis will be placed on general methods and observation, special method and observation of demonstration teaching, materials and course of study making, and participation in teaching secondary-school classes. The second term will be devoted mainly to responsible student teaching, conference, extra-instructional problems, and parallel experiences, and special preparation for apprentice teaching.

Distribution of credit: General Method and Extra-Instructional Problems, three hours; Special Method, three hours; Observation and Participation, one hour (25 clock hours); Student Teaching, three hours (75 clock hours).

130a. The Art of Teaching. (Ed. and R.E.) Either term. Credit five to ten hours. Prerequisite, Educational Psychology and Social Foundations of Education or equivalent. Open only to selected fifth-year students.

Generally the equivalent of Ed. 130. The undergraduate preparation of the student will determine the nature and amount of work required in this area.

131. Introduction to Teaching in Vocational Agriculture. (R.E.) Either term. Credit three hours. Must be preceded or accompanied by an acceptable course in educational psychology. Open by permission only to students whose practical experience and grades are satisfactory and whose progress in the prescribed courses in technical agriculture is adequate. Associate Professor SMITH. Lectures, T Th 11. First term, *Warren 101*; second term, *Warren 140*. Laboratory, M 1:40-4. *Plant Science 37*.

Consideration of the organization of programs of instruction in vocational agriculture and of the problems involved in conducting a program. Observation of teaching in typical departments; preparation for course 132. Laboratory fee, \$3.

132. The Teaching of Agriculture in the Secondary School. In two sequences of two terms each, beginning in either term. Credit four hours first term and three hours second term for a total of seven hours. Open to juniors and seniors who have completed an acceptable course in educational psychology and course 131, whose farm experience is adequate, and who have permission to register.

SEQUENCE 1, beginning the first term, T Th 9. *Warren 201*. Associate Professor HOSKINS. SEQUENCE 2, beginning the second term, T Th 10. *Warren 201*. Assistant Professor OLNEY. Laboratories to be arranged. Joint meetings with student teachers of home economics and academic subjects, first term, alternate Wednesdays, 4:15-5:30.

A study of the problems of teaching based upon the planning for and participation in teaching. Opportunity is provided for experience in organizing course

materials, in equipping departments, and in planning programs for special groups. Laboratory fee, \$5 a term.

135. The Teaching of Home Economics in the Secondary School. (R.E.) Either term. Credit three hours for students who have completed R.E. 137; credit five hours for students who have not taken R.E. 137.

Open to juniors and seniors who have been approved by a committee composed of members of the faculties of Home Economics and Rural Education. Prerequisite, Human Growth and Development and Education 100. Required of all students preparing to teach home economics. Miss HUTCHINS. General conference, S 9-11, *Warren* 240. Joint meetings with student teachers of agriculture and academic subjects, first term, alternate Wednesdays, 4:15-5:30. Additional hours to be arranged.

Schedules must provide the same two-hour period daily throughout the semester for observation and participation in the Ithaca Public Schools and must be approved by the instructor.

136. Directed Teaching of Home Economics in the Secondary School. (R.E.) Either term. Credit four to six hours. Open to seniors who have completed course R.E. 135 and who have been approved by a committee composed of members of the faculties of Home Economics and Rural Education. Professor BINZEL, Miss HASTIE, and Mrs. ROBERTS. General conference, S 8-10. *Stone* 309. Joint meetings with student-teachers of agriculture and academic subjects, first term, alternate Wednesdays, 4:15-5:30. Other hours to be arranged. Schedules must be approved by Miss BINZEL.

Schedules must provide a minimum of three entire days a week, or the equivalent, over a period of five weeks for directed teaching. The course includes visits to schools for the purposes of studying programs, furnishings, and equipment. Fee, \$10.

200. Apprentice Teaching. (Ed. and R.E.) An eight-week period off campus to be arranged. Credit six hours. Associate Professor HULSE, Professor BINZEL, Associate Professor HOSKINS, Assistant Professor OLNEY, Mr. ELDRDRED, and members of the staff. Required of all candidates for the M.Ed. degree. Prerequisite: satisfactory completion of the first four years of the five-year program, or the equivalent, or special permission.

Students are assigned to cooperating schools so selected as to provide the most favorable conditions for this type of experience. They are expected to carry a half-time teaching program including the usual related responsibilities of the teacher. Preparation for teaching and work on special problems under the direction of University instructors occupy the remainder of the student's time. Each student is under the immediate supervision of the principal, of a competent local teacher, and of a member of the staff of the School of Education.

210. Special Problem in Teaching. (R.E. and Ed.) Either term. Credit two hours. Members of the staff.

A critical study of some phase of teaching undertaken during the period of apprentice teaching.

220. Philosophy of Education. (Ed. and R.E.) Credit two hours. Offered for an eight-week period during the second term at such time as will not interfere with the student's apprentice teaching. Time and place of meeting to be arranged. Professor EATON.

For fifth year students in preparation for secondary school teaching under the five-year program. A coordinating course in the professional sequence designed chiefly to develop a critical appreciation of teaching enterprise. It centers, therefore, upon the question of values in education and calls for examination and judgment of aims and content from that standpoint. Every student is required to undertake a study in valuation of the teaching enterprise in his own field of specialization.

OTHER PROFESSIONAL COURSES

GENERAL COURSES

Ed. 20. **Seminar in Human Development and Behavior.** First term. Credit two hours. Primarily for graduate students. Seniors may be admitted with permission of the instructor. Professor FREEMAN. Th 4-6. *Goldwin Smith* 248.

Topics relevant to educational theory and practice.

R.E. 234. **Seminar.** First term. Credit two hours. Open to graduate students contemplating research in education and who have permission to register. Associate Professor SMITH. W 2-4. *Stone* 309.

A consideration of scientific method applied in education through graduate studies and other educational research.

EDUCATIONAL PSYCHOLOGY

Ed. 8. **Experimental Educational Psychology.** Either term. Credit and hours to be arranged. Consent of the instructor is required. Education 7 or its equivalent should normally precede this course. Professor FREEMAN.

The application of psychological and statistical methods to problems in education.

[Ed. 17. **Mental Development.** First term. Credit two hours. Professor FREEMAN. Not given in 1942-43.]

[Ed. 18. **Individual Differences.** Second term. Credit three hours. Not given in 1942-43.]

R.E. 110. **Psychology: An Introductory Course.** Either term. Credit three hours. Not open to freshmen. Professor WINSOR. M W F 10. *Goldwin Smith* C. Fee, \$1.

R.E. 112. **Psychology for Students of Education.** Either term. Credit three hours. Prerequisite, R.E. 110, Psychology 1, Human Growth and Development or the equivalent. Open to second-term sophomores, juniors, and seniors. Assistant Professor BAYNE. First term, M W F 9. Second term, M W F 10. *Warren* 125. Fee, \$1.

Psychology for Students of Hotel Administration. (Hotel Administration 114.) First term. Credit three hours. Not open to freshmen. Professor WINSOR. M W F 8. *Warren* 225.

A study of the methods and problems of general psychology.

R.E. 117. **Psychology of Childhood and Adolescence.** Either term. Credit three hours. Prerequisite, a course in educational psychology. Mr. ———. M W F 10. *Roberts* 392.

Personnel Administration. (Hotel Administration 119.) Second term. Credit three hours. Prerequisite, Hotel Administration 114 or its equivalent. Professor WINSOR. Lectures, M W F 8. *Plant Science* 233.

A study of the problems of human relations in industry. The methods and problems of recruitment, selection, placement, maintenance, organization, and government of employees are analyzed with particular reference to the hotel industry.

R.E. 211a. **Psychology for Students of Education.** First term. Credit three hours. For mature students with teaching experience. Professor KRUSE. M F 11-12:20. *Stone* 309.

R.E. 212. **Psychology of Learning.** Second term. Credit two hours. Professor KRUSE. Th 4:00-5:45. *Stone* 309.

R.E. 213. **Psychology of Learning in the School Subjects.** First term. Credit two hours. Prerequisite, a course in educational psychology and permission of the instructor. Assistant Professor BAYNE. S 9-11. *East Roberts* 223.

[R.E. 218. **Seminar in Educational Psychology.** Second term. Credit two hours. Professor KRUSE. Not given in 1942-43.]

Seminar in Personnel Administration. (Hotel Administration 219.) Second term. Credit two hours. Prerequisite, course 119. Open to qualified seniors and graduate students. Professor WINSOR. Th 4:15-6. *Warren* 340.

EDUCATIONAL METHOD

121. Method and Procedure in Secondary School Teaching. (R.E.) First term. Credit three hours. Prerequisite, course 100, 112 or the equivalent. Open to juniors and seniors. Professor FERRISS. Lectures, M W F 11. *Plant Science* 37.

The development of certain principles of teaching in secondary schools and their application to practical problems of teaching, such as objectives, selecting and organizing teaching materials, making the assignment, directing study, and so forth.

R.E. 127. Observational Aids in Teaching. Second term. Credit two hours. Assistant Professor JOHNSON. T Th 8. *Fernow* 14.

A study of methods of collecting and preparing visual and other aids to instruction together with a study of techniques for using such aids effectively.

[R.E. 129. Teaching Adaptations for the Atypical Child. Second term. Credit three hours. Not given in 1942-43.]

R.E. 31. Planning for Teaching in Agriculture. First term. Without credit. Open to sophomores who are planning or who may plan to teach agriculture in the public schools. Associate Professor SMITH. First term, Th 10. *Warren* 140.

Consideration of the problems leading to choice of agricultural education as a field of preparation.

R.E. 133. Directed Teaching of Students in Agricultural Education. First or second term. Credit to be arranged. Registration by permission. Associate Professor HOSKINS and Assistant Professor OLNEY. Fee, \$3 a term.

[R.E. 134. Adult Education. First term. Credit three hours. Professor MOORE. Not given in 1942-43.]

R.E. 134a. Special Education for Out-of-School Youths and Adults. Second term. Credit two hours. For seniors and graduate students in vocational subjects; others by permission. Associate Professor HOSKINS. Hours to be arranged.

A consideration of the organization and leadership of programs for groups of out-of-school youths and adults, including programs in defense centers and for adult education in secondary schools.

134b. Adult Homemaking Education: Organization and Policies (Educational Leadership in Home Economics 330 and 430). Second term. Credit three hours. Should precede course 134c. Assistant Professor HENDERSON. Discussions, M W F 11. Field trips and individual conferences to be arranged. *Martha Van Rensselaer* 343.

A professional training course for home economics extension workers and public school teachers of homemaking for adults; adapted to the needs of all those interested in leadership in informal homemaking education. Estimated cost of trips, \$8. Fee, \$5.

134c. Adult Homemaking Education: Program Planning and Methods. (Educational Leadership in Home Economics 340 and 440). First term. Credit three hours. Open to students who have had course 134b or comparable experience. Assistant Professor HENDERSON. Discussions, M W F 11. Field trips and individual conferences to be arranged. *Martha Van Rensselaer* 343.

An opportunity is provided for students to work independently on planning and carrying through, with a community group, a program of homemaking improvement. Estimated expenses of trips, \$8. Fee, \$5.

R.E. 226. Research in Science Teaching. Either term. Credit one or two hours a term. Professor PALMER and Assistant Professor JOHNSON. M 4:30. *Fernow* 8. Special problems in science teaching.

R.E. 227. Seminar in Elementary Education. Second term. Credit two hours. Professor MOORE. S 9-11. *East Roberts* 223.

R.E. 228. **Seminar in Child Guidance.** (Family Life 350.) Second term. Credit two hours. Professor WARING. For graduate students who have had some work in child guidance. F 4-6. *Martha Van Rensselaer* G-58.

Ed. 230. **Seminar in Social Studies Education.** Either term. Credit as arranged. Associate Professor ANDERSON. M 4:15. *Boardman* M213.

Students working on critical papers, theses, or other research in the field may register for this course.

[R.E. 232. **Advanced Problems in the Teaching of Vocational Agriculture.** Second term. Credit two hours. Associate Professor HOSKINS. Not given in 1942-43.]

R.E. 235. **Seminar in Teaching Home Economics.** Second term. Credit two hours. Students will need to consult the instructor before registering. Professor THURSTON. Hours to be arranged.

This course provides opportunity for graduate study of methods in home economics education and for field work. It is intended for secondary school teachers, extension workers, college teachers, supervisors, those who prepare teachers, and other leaders in home economics. Individual problems may include experiments, observation, and practice in teaching and supervision. It is especially recommended in connection with courses R.E. 248, R.E. 249, and R.E. 269.

R.E. 249. **Seminar in Home Economics Education.** First and second terms. Credit two to four hours either term. Total credit for the year not to exceed six hours. Students will need to consult instructor before registering. Professor THURSTON. Hours to be arranged. Field work will be required.

Designed to meet the needs of graduate students who have had experience as home economics educators in schools, colleges, extension service, business, etc. Arrangements will be made for students to work on their individual problems. Courses in philosophy and principles of education, psychology, guidance, curriculum, and measurement are recommended as prerequisite or parallel.

PREPARATION OF TEACHERS FOR NORMAL SCHOOLS AND COLLEGES

B 35. **Problems in Educational Personnel and Guidance.** Planned for graduate students. Second term. Credit four hours. Dr. REED. W 4-6. *Warren* 140.

This is a conference course on personnel problems, designed to serve students who are interested in advisory work on any level of education, including the adult field. Topics will include: Selective Admission, Orientation, Incentives to Scholarship, Educational and Vocational Adjustment Problems, Social and Health Problems, Administration of Personnel Service, etc.

R.E. 241. **The Preparation of Teachers for Normal Schools and Colleges.** Second term. Credit two hours. Professor MOORE. W 4-6. *Stone* 309.

To meet the needs of those responsible for the training of teachers for elementary and secondary schools.

R.E. 245. **The College Preparation of Teachers of Agriculture for the Secondary School.** Second term. Credit three hours. Should follow Course 211a or its equivalent. T Th 11-12:20. *Stone* 309. Professor STEWART.

A course designed to study critically in the light of the teaching of agriculture in junior and secondary schools the programs of teacher education in the colleges of agriculture.

[R.E. 248. **The Preparation of Teachers of Home Economics for Secondary Schools.** Second term. Credit two hours. Professor THURSTON. Not given in 1942-43.]

R.E. 250. **Seminar in Agricultural Education.** First term. Credit two hours. For teachers of agriculture and students whose progress in graduate study is satisfactory. First term. Professor STEWART and Assistant Professor OLNEY. T 4:00-5:30. *Stone* 309.

A critical study of state plans of vocational education in agriculture with particular reference to the utilization of school and community activities and organizations.

MEASUREMENT AND STATISTICS

Ed. 7. Mental Measurements. First term. Credit three hours. Prerequisite, a course in general or educational psychology or Human Growth and Development. Professor FREEMAN. T Th S 9. *Goldwin Smith* 234.

Development of individual and group tests of intelligence and personality; principles underlying their construction and use; their use in schools, psychological clinics, and in other fields. The nature of mental abilities. Use of educational tests. Demonstrations in administering and interpreting tests.

R.E. 251. Educational Measurement. Second term. Credit three hours. Candidates for the principal's certificate may register for two hours credit. Prerequisite, a course in educational psychology. Assistant Professor BAYNE. S 11-12:30 and an additional hour to be arranged. *Roberts* 492.

The use of aptitude and achievement tests and other measuring instruments in the classification and guidance of pupils, improvement of instruction, and other activities of the teacher and school officer. Those class members who wish may make a study of their own aptitudes and achievements.

R.E. 253. Introduction to Educational Statistics. First term. Credit three hours. Assistant Professor BAYNE. T Th 10 and an hour to be arranged. *Stone* 309.

A study of common statistical procedures in relation to critical reading of technical studies, research, and writing reports of studies. As far as possible the work is related to the problems of the individual student.

R.E. 253a. Statistical Instruments in Education. Second term. Credit two hours. Prerequisite, a first course in statistics and permission of the instructor. Assistant Professor BAYNE. T 10. *Stone* 309.

ADMINISTRATION AND SUPERVISION

Ed. 5. High School Administration. Second term. Credit two hours. Professor FERRISS. M W 2. *Goldwin Smith* 221.

A course in the organization and administration of the secondary school.

[**Ed. 11. Extra-Classroom Activities.** First term. Credit three hours. Professor ———. Not given in 1942-43.]

[**Ed. 12. The Junior High School.** First term. Credit three hours. Professor ———. Not given in 1942-43.]

B 28. Educational and Vocational Guidance. Planned primarily for graduate students but a small number of undergraduates with a background of experience may be admitted upon permission of the instructor. First term. Credit two hours. Dr. REED. W 4-6. *Warren* 140.

This is an information course. It is designed to familiarize students with (1) the history, principles, and place of guidance in a democratic society, (2) methods of collecting, classifying, interpreting, and disseminating various types of information essential to a successful guidance program (educational, occupational, community, etc.), (3) placement procedures and employment supervision.

R.E. 246. Problems in Industrial and Technical Education. Either term. Credit four hours each term. Professor L. A. EMERSON. T Th 2-4. *Stone* 310.

Special problems in the administrative, supervisory, and curricular phases of industrial and technical education.

R.E. 261. The Administration of Rural Schools. First term. Credit three hours. T Th 11. Professor BUTTERWORTH. *Stone* 309.

A consideration of the major problems in the administration of schools in communities under 4500 population.

[**R.E. 262a. School Finance.** Second term. Credit two hours. Professor BUTTERWORTH. Not given in 1942-43.]

[**R.E. 262c. The School Plant.** Second term. Credit two hours. Professor BUTTERWORTH. Not given in 1942-43.]

R.E. 263. Procedures and Techniques in Supervision. First term. Credit three hours. Candidates for the principal's certificate may register for two hours credit. Professor MOORE. M W F 10. *Stone* 309.

Designed for superintendents, supervisors, and principals. Students who have not had experience in these fields will be admitted only upon permission of the instructor. Students taking this course must be prepared to spend four full days or more in observing supervisory procedures in various school systems.

R.E. 264. **Seminar in Rural School Administration.** Second term. Credit two hours. Professor BUTTERWORTH. S 10-11:30. *Stone* 309.

Topic to be announced.

R.E. 265. **Seminar for Principals.** First term. Credit two hours. Required of all graduate students who are candidates for a principal's certificate. Professor FERRISS. S 11-1. *Stone* 309.

R.E. 266. **The Supervision of the Elementary School.** Second term. Credit three hours. Candidates for a principal's certificate may register for two hours credit. Professor MOORE. M W F 9. *Stone* 309.

A course designed for supervisors, elementary school principals, and superintendents. It includes a consideration of important research studies which have a direct bearing upon the teaching and supervision of the elementary school subjects.

[R.E. 267. **The Organization and Administration of Vocational Agriculture in the Public Schools.** Second term. Credit three hours. Should follow or accompany Course 261. Professor STEWART. Not given in 1942-43.]

R.E. 269. **The Supervision of Home Economics Education.** Second term. Credit two hours. Professor THURSTON. Time to be arranged. Students must consult the instructor before registering. Field work will be required.

For persons who are now engaged in supervision and in the education of teachers in service and for those who wish to prepare for such work.

R.E. 276. **Principles of Curriculum Building.** Second term. Credit three or four hours. Primarily for graduate students. Professor FERRISS. T Th 2-3:30, and an additional hour to be arranged for those who wish to carry further the study of special curriculum problems. *Stone* 309.

A consideration of major problems, principles, and techniques in determining educational objectives and curriculum content and organization in elementary and secondary schools in the light of modern theory and practice.

[R.E. 277. **Course of Study in Vocational Agriculture.** Second term. Credit two hours. Associate Professor HOSKINS. Not given in 1942-43.]

[R.E. 278. **Seminar in Rural Secondary Education.** Second term. Credit two hours. Professor FERRISS. Not given in 1942-43.]

HISTORY OF EDUCATION

[Ed. 13. **History of American Education.** First term. Credit three hours. Associate Professor HULSE. Not given in 1942-43.]

Ed. 16. **Readings in the History of Education.** Second term. Credit two hours. Consent of instructor is required. Associate Professor HULSE. Hours to be arranged. *Goldwin Smith* 251.

An advanced course, emphasizing the historic changes in aims and methods.

EDUCATIONAL THEORY

R.E. 194. **Principles of Vocational Education.** First term. Credit three hours. Open to students who have completed satisfactorily courses in educational psychology and economics or sociology. Professor EATON. M W F 10. *Warren*, 140.

The course calls for a study of the nature, the aims, and the socio-economic backgrounds of vocational education.

R.E. 281. **Rural Secondary Education.** First term. Credit three hours. Primarily for graduate students. Professor FERRISS. M W F 9. *Stone* 309.

A consideration of some of the more basic problems in the functions, nature, organization, curriculum, and extension of secondary education in its adaptation to rural and village needs and conditions.

R.E. 294a. **The Evolution of Educational Theory.** First term. Credit three

hours. Open to graduate students well grounded in the study of education. Professor EATON. T Th 9, S 10. *Plant Science* 141.

The course calls for study and comparison of major theories of education from Plato to John Dewey.

R.E. 294b. **Theory of Values in Education.** Second term. Credit two hours. Open to graduate students who have had two years or more of professional experience in education. Professor EATON. M F 11. *Stone* 309.

The course calls for study (1) of the nature of educational enterprise, (2) of the major criteria of educational value, and for (3) the valuing of objectives, content, and organization in specific enterprises of education.

[R.E. 295. **Comparative Education.** First term. Credit two hours. Professors BUTTERWORTH, FERRISS, and MOORE. Not given in 1942-43.]

NATURE STUDY

R.E. 106. **Outdoor Living.** First term. Credit two hours. Open to juniors, seniors, and graduate students. Professor PALMER and Miss GORDON. Lecture, F 10. Laboratory and field work, F 1:40-4, with two overnight trips. *Fernow* 8.

A study of outdoor living with practice in understanding the terrain, methods of camping and hiking, primitive communication and protection; with suggestions for maintaining morale with crafts, games, and other devices. Laboratory fee, \$5.

R.E. 107a. **The Teaching of Nature Study and Elementary School Science.** Second term. Credit two hours. Open to juniors, seniors, and graduate students. Professor PALMER and Miss GORDON. Lecture, Th 8. Practical exercises, Th 1:40-4. *Fernow* 8.

A study of the content and methods of nature study and elementary school science, with field work and laboratory experience useful in classroom and camp. Recommended for those preparing to teach or supervise science. Laboratory fee, \$1.50.

R.E. 108. **Field Natural History.** Second term. Credit two hours. Not open to freshmen. Professor PALMER and Miss GORDON. Lecture, F 10. Field work, F 1:40-4. *Fernow* 8.

Field trips and lectures devoted to a study of the natural history of five ecological units under different seasonal conditions with special emphasis on their contributions to the teaching of science. Laboratory fee, \$1.

R.E. 202. **Nature Literature.** First term. Credit two hours. Open to seniors and graduate students interested in science and science teaching. Professor PALMER and Miss GORDON. M 1:40-4. *Fernow* 8.

A survey of nature and science prose, poetry, and fiction with some attention to their significance at elementary and secondary school levels.

[R.E. 209. **The Nature Movement and Its Makers.** First term. Credit two hours. Professor PALMER and Miss GORDON. Not given in 1942-43.]

RESEARCH

B. 300. **Special Studies.** Credit as arranged. Members of the staff.

Students working on theses or other research projects may register for this course. The staff members concerned must be consulted before registration.